3   determining whether a difference between the load balancing share and the actual

4   load balancing share is less than a change threshold; and

5   when the difference between the load balancing share and the actual load

6   balancing share is less than the change threshold,

7   reducing the load balancing share of the data path; and

8   increasing the load balancing share of another data path.

1   7.   The method of claim 6, wherein the load balancing share of the data path

2   in the network adapter team with a lowest difference load balancing value is increased,

3   and wherein, if multiple data paths have the lowest difference load balancing value, a

4   data path from the multiple data paths with a highest actual load balancing share is

5   increased.

1   8.   The method of claim 5, further comprising:

2   computing a difference load balancing value for each data path in the network

3   adapter team.

1   9.   The method of claim 8, wherein the actual load balancing share and the

2   difference load balancing value are computed when a timer fires.

1   10.   The method of claim 5, further comprising:

2   receiving a timer interval value, a change threshold value, and a load balancing

3   change percent value.

1   11.   The method of claim 5, further comprising:

2   receiving a list of data paths in the network adapter team, a total number of bytes

3   transferred by the network adapter team in a last time frame, a load balancing share of

4   each data path in the last time frame, and a number of bytes transferred on each data path

5   in the last time frame.

1   12.   A method for failover processing, comprising:

2   determining whether a command may be routed through a first network adapter;

3   routing the command through the first network adapter in response to determining

4   that the command may be routed through the first network adapter; and

5   routing the command through a second network adapter in response to

6   determining that the command may not be routed through the first network adapter.

1   13.   The method of claim 12, wherein the determination of whether a

2   command may be routed through a first network adapter determines whether an

3   indication that the first network adapter failed was received.

1   14.   The method of claim 12, wherein routing the command further comprises:

2   forwarding the command to a low level driver with an indication of the selected

3   network adapter.

1   15.   The method of claim 12, further comprising:

2   performing load balancing between the first network adapter and the second

3   network adapter when both network adapters are available.

1   16.   A system for static load balancing, comprising:

2   multiple data paths forming a network adapter team; and

3   circuitry, in a load balancing component that is coupled to a bus, operable to:

4   for each data path in a network adapter team, compute a load balancing

5   value;

6   determine a maximum value of the computed load balancing values; and

7   select a data path with the maximum value for use in routing data.

1   17.   The system of claim 16, wherein the circuitry is operable to:

2   receive a list of the data paths in the network adapter team, a total number of

3   bytes transferred by the network adapter team, a load balancing share of each data path,

4   and a number of bytes transferred on each data path.

1   18.   The system of claim 17, wherein the circuitry operable to compute the

2   load balancing value for a data path is operable to:

3   divide the total number of bytes by the number of bytes transferred on the data

4   path to generate a first value; and

5   multiply the first value by the load balancing share of the data path.

1   19.   The system of claim 17, wherein the load balancing share is provided by a

2   user.

1   20.   A system for dynamic load balancing, comprising:

2   multiple data paths forming a network adapter team; and

3   .   circuitry, in a load balancing component that is coupled to a bus, operable to:

4   compute an actual load balancing share for each data path in a network

5   adapter team; and

6   for each data path,

7   determine whether a load balancing share for the data path is less

8   than the actual load balancing share for the data path; and

9   when the load balancing share is less than the actual load balancing

10   share, adjust the load balancing share of the data path.

1   21.   The system of claim 20, wherein the circuitry operable to adjust the load

2   balancing share is operable to:

3   determine whether a difference between the load balancing share and the actual

4   load balancing share is less than a change threshold; and

5   when the difference between the load balancing share and the actual load

6   balancing share is less than the change threshold,

7   reduce the load balancing share of the data path; and

8   increase the load balancing share of another data path.

1   22.   The system of claim 21, wherein the load balancing share of the data path

2   in the network adapter team with a lowest difference load balancing value is increased,

3 and wherein, if multiple data paths have the lowest difference load balancing value, a

4 data path from the multiple data paths with a highest actual load balancing share is

5 increased.

1   23.   The system of claim 20, wherein the circuitry is operable to:

2   compute a difference load balancing value for each data path in the network

3 adapter team.

1   24.   The system of claim 23, wherein the actual load balancing share and the

2 difference load balancing value are computed when a timer fires.

1   25.   The system of claim 20, wherein the circuitry is operable to:

2   receive a timer interval value, a change threshold value, and a load balancing

3 change percent value.

1   26.   The system of claim 20, wherein the circuitry is operable to:

2   receive a list of data paths in the network adapter team, a total number of bytes

3 transferred by the network adapter team in a last time frame, a load balancing share of

4 each data path in the last time frame, and a number of bytes transferred on each data path

5 in the last time frame.

1   27.   A system for failover processing, comprising:

2   a first network adapter;

3   a second network adapter; and

4   circuitry, in a failover component coupled to a bus, operable to:

5   determine whether a command may be routed through a first network

6 adapter;

7   route the command through the first network adapter in response to

8 determining that the command may be routed through the first network adapter; and

9   route the command through a second network adapter in response to

10 determining that the command may not be routed through the first network adapter.

1   28.   The system of claim 27, wherein the circuitry operable to determine

2 whether the command may be routed through the first network adapter is operable to

3 determine whether an indication that the first network adapter failed was received.

1   29.   The system of claim 27, wherein the circuitry to route the command is

2 operable to:

3   forward the command to a low level driver with an indication of the selected

4 network adapter.

1   30.   The system of claim 27, wherein the circuitry is operable to:

2   perform load balancing between the first network adapter and the second network

3 adapter when both network adapters are available.

1   31.   An article of manufacture for static load balancing, wherein the article of

2 manufacture is operable to:

3   for each data path in a network adapter team, compute a load balancing value;

4   determine a maximum value of the computed load balancing values; and

5   select a data path with the maximum value for use in routing data.

1   32.   The article of manufacture of claim 31, wherein the article of manufacture

2 is operable to:

3   receive a list of the data paths in the network adapter team, a total number of

4 bytes transferred by the network adapter team, a load balancing share of each data path,

5 and a number of bytes transferred on each data path.

1   33.   The article of manufacture of claim 32, wherein the article of manufacture

2 operable to compute the load balancing value for a data path is operable to:

3   divide the total number of bytes by the number of bytes transferred on the data

4 path to generate a first value; and

5   . multiply the first value by the load balancing share of the data path.

1   34.   The article of manufacture of claim 32, wherein the load balancing share

2   is provided by a user.

1   35.   An article of manufacture for dynamic load balancing, wherein the article

2   of manufacture is operable to:

3   compute an actual load balancing share for each data path in a network adapter

4   team; and

5   for each data path,

6   determine whether a load balancing share for the data path is less than the

7   actual load balancing share for the data path; and

8   when the load balancing share is less than the actual load balancing share,

9   adjust the load balancing share of the data path.

1   36.   The article of manufacture of claim 35, wherein the article of manufacture

2   operable to adjust the load balancing share is operable to:

3   determine whether a difference between the load balancing share and the actual

4   load balancing share is less than a change threshold; and

5   when the difference between the load balancing share and the actual load

·6   balancing share is less than the change threshold,

7   reduce the load balancing share of the data path; and

8   increase the load balancing share of another data path.

1   37.   The article of manufacture of claim 36, wherein the load balancing share

2   of the data path in the network adapter team with a lowest difference load balancing

3   value is increased, and wherein, if multiple data paths have the lowest difference load

4   balancing value, a data path from the multiple data paths with a highest actual load

5   balancing share is increased.

1   38.   The article of manufacture of claim 35, wherein the article of manufacture

2   is operable to:

3   compute a difference load balancing value for each data path in the network

4   adapter team.

1   39.   The article of manufacture of claim 38, wherein the actual load balancing

2   share and the difference load balancing value are computed when a timer fires.

1   40.   The article of manufacture of claim 35, wherein the article of manufacture

2   is operable to:

3   receive a timer interval value, a change threshold value, and a load balancing

4   change percent value.

1   41.   The article of manufacture of claim 35, wherein the article of manufacture

2   is operable to:

3   receive a list of data paths in the network adapter team, a total number of bytes

4   transferred by the network adapter team in a last time frame, a load balancing share of

5   each data path in the last time frame, and a number of bytes transferred on each data path

6   in the last time frame.

1   42.   An article of manufacture for failover processing, wherein the article of

2   manufacture is operable to:

3   determine whether a command may be routed through a first network adapter;

4   route the command through the first network adapter in response to determining

5   that the command may be routed through the first network adapter; and

6   route the command through a second network adapter in response to determining

7   that the command may not be routed through the first network adapter.

1   43.   The article of manufacture of claim 42, wherein the article of manufacture

2   operable to determine whether a command may be routed through a first network adapter

3   is operable to determine whether an indication that the first network adapter failed was

4   received.

1   44.   The article of manufacture of claim 42, wherein the article of manufacture

2   operable to route the command is operable to:

3   forward the command to a low level driver with an indication of the selected

4   network adapter.

1   45.   The article of manufacture of claim 42, wherein the article of manufacture

2   is operable to:

3   perform load balancing between the first network adapter and the second network

4   adapter when both network adapters are available.